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IMSANZ top-five recommendations on low value practices

IMSANZ represents over 700 Consultant Physicians and trainees in Internal Medicine (also known as General Medicine or General and Acute Care Medicine) within Australia and New Zealand. The Society provides a mechanism for developing the academic and professional profile of general medicine and seeks to advocate for and sponsor the educational training, research and workforce requirements of general internal medicine. It is an affiliated specialty society of the Royal Australasian College of Physicians.

A panel of IMSANZ members produced an initial list of 32 low value practices in general medicine which were then refined down to 15 by a larger working group and then reduced further to a list of 10 by consensus. Recommendations on 'what not to do' around these 10 items were formulated and an online survey was sent to all IMSANZ members. The survey presented the recommendations and summarised the evidence for each. Respondents were asked to assign a score from 1 to 5 for each recommendation on three criteria. The final top-five chosen were the recommendations with the five highest average total scores assigned to them.

1. **Avoid medication-related harm in older patients (>65 years) receiving five or more regularly used medicines by performing a complete medication review and deprescribing where appropriate**

2. **Don't request daily full blood counts, erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) as measures of response to antibiotic treatment in immunocompetent patients with mild to moderate community-acquired infections who are clinically improving**

3. **Once they have become afebrile and tolerant of oral antibiotics, don't continue prescribing intravenous antibiotics to patients with uncomplicated infections and no high-risk features**

4. **Don't request Holter monitoring, carotid duplex scans, echocardiography, electroencephalograms (EEGs) or telemetry in patients with first presentation of uncomplicated syncope and no high-risk features**

5. **Don't request computerised tomography pulmonary angiography (CTPA) as the first-choice investigation in patients with low risk of venous thromboembolism (VTE) by Well's score. Instead request D-dimer and perform imaging only if levels are elevated, after adjusting for age**

ABOUT EVOLVE

EVOLVE is a physician-led initiative to ensure the highest quality patient care through the identification and reduction of low-value practices and interventions.

EVOLVE is patient-centred and evidence-based, with rigorous and transparent processes. Its focus is to stimulate clinical conversations – between colleagues, across specialties, and with patients – to ensure the care that's delivered is the best for each patient.

EVOLVE is part of a worldwide movement to analyse medical practices and reduce unnecessary interventions. It is an initiative in partnership between the RACP and the Specialty Societies, Divisions, Faculties and Chapters.

For more information email EVOLVE@racp.edu.au
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1 Avoid medication-related harm in older patients (>65 years) receiving five or more regularly used medicines by performing a complete medication review and deprescribing where appropriate

Studies show that the risk of medication-related harm rises once the number of regularly prescribed medicines exceeds five; this risk increases exponentially as the number reaches eight or more. Medicines that deserve particular attention are benzodiazepines and other sedative-hypnotics, anti-psychotics, hypoglycaemic agents, antithrombotic agents, anti-hypertensives, and anti-anginal agents.

Trying to achieve aggressive treatment targets, such as BP <130/80 or HbA1c <7 per cent, in frail older patients with multiple co-morbidities confers little benefit and a higher risk of harm.

Discontinuation should be considered where past indications for specific medicines are no longer valid, the risk of harm outweighs the benefits within a patient's remaining life span, or medicines are associated with past toxicity or non-adherence.

2 Don't request daily full blood counts, erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP) as measures of response to antibiotic treatment in immunocompetent patients with mild to moderate community-acquired infections who are clinically improving

The decision on whether or not to cease antibiotic treatment or switch from intravenous (IV) to oral antibiotics should be guided by the results of microbiological cultures indicating bacterial species and antimicrobial sensitivities, and evidence of defervescence and improved clinical status rather than by changes in the levels of white cell count (WCC) from a full blood count, C-reactive protein (CRP) or erythrocyte sedimentation rate (ESR).

However, these markers can help to predict poor prognosis in patients with severe infections in whom the clinical response may be difficult to determine (e.g. immunosuppressed patients or those who are critically ill or those at risk of drug-resistant hospital-acquired infections). In these cases, the failure of markedly elevated CRP and WCC to decrease by specified amounts would suggest that the antimicrobial therapy is not being effective.

3 Once they have become afebrile and tolerant of oral antibiotics, don't continue prescribing intravenous antibiotics to patients with uncomplicated infections and no high-risk features

Patients with uncomplicated infections not requiring prolonged antibiotic therapy and with no high-risk features should be switched from intravenous (IV) to oral antibiotics once they are afebrile and able to tolerate oral medication. In hospital, this often occurs by day three. Patients who would be exceptions to this rule are those suffering from life threatening or deep-seated infections (such as suspected endocarditis, osteomyelitis or meningitis), and high risk patients (such as immunocompromised patients including HIV, intravenous drug use, or underlying advanced cancer, and documented multi-resistant bacteraemia or hospital -acquired infection).

There is no evidence to support the belief that oral medications are not as bioavailable as IV medications, or that the same agent must be used both IV and orally.

The scope for early IV-to-oral conversion has broadened, owing to the advent of newer, more potent or broad-spectrum oral agents that achieve higher and more consistent serum and tissue concentration. Moreover, earlier switchover from IV-to-oral therapy reduces the risk of cannula-related infections, carries no risk of thrombophlebitis, and allows for earlier discharge and reduced cost.

4 Don't request Holter monitoring, carotid duplex scans, echocardiography, electroencephalograms (EEGs) or telemetry in patients with first presentation of uncomplicated syncope and no high-risk features

Holter monitoring, carotid duplex scans, echocardiography, electroencephalograms (EEGs) and telemetry have very low diagnostic yield in patients with uncomplicated syncope and no clinical features of, or risk factors for, the following:

- arrhythmia (e.g. palpitations preceding syncope, exertional syncope, unheralded syncope, history suggestive of heart failure or ischaemic heart disease)
- carotid stenosis (transient ischaemic attacks do not present as syncope unaccompanied by focal neurological symptoms or signs),
- cardiac valvular disorders (e.g. definite heart murmurs) or
- seizures (which rarely manifest as syncope unaccompanied by post-ictal confusion).

Most syncopal episodes are vasovagal or secondary to postural hypotension. For these episodes, careful history, as well as lying and standing blood pressure measurements, are the most important diagnostic tools.

5 Don't request computerised tomography pulmonary angiography (CTPA) as the first-choice investigation in patients with low risk of venous thromboembolism (VTE) by Well's score. Instead request D-dimer and perform imaging only if levels are elevated, after adjusting for age

The D-dimer test is highly sensitive for deep vein thrombosis and pulmonary thromboembolism, such that a negative result (adjusted for age) rules out this condition in patients with low pre-test probability. Correspondingly, D-dimer assay should be the first-choice investigation in patients at low risk according to the Well's score rather than computerised tomography pulmonary angiography (CTPA).

These considerations are heightened by the risks associated with CTPA testing such as radiation exposure, benign incidentalomas that may provoke invasive investigations, and isolated small subsegmental emboli whose natural history is unknown and for which anticoagulation has not yet been shown to be of any benefit.

For more details on the list development process see
evolve.edu.au/published-lists/internal-medicine-society-of-australia-and-new-zealand

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Internal Medicine Society of Australia and New Zealand – top-five recommendations on low value practices

EVIDENCE SUPPORTING RECOMMENDATION 1

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EVIDENCE SUPPORTING RECOMMENDATION 2

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EVIDENCE SUPPORTING RECOMMENDATION 4

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EVIDENCE SUPPORTING RECOMMENDATION 5

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